05/06/14 Agenda

Review Homework
- Worksheet 5 - Quadratics Day 5

- Chapter 9 - Quadratic Functions & Equations
- Quiz Review

- Quiz TOMORROW!!!

Homework
- Finish Quiz Review Worksheet

11.) $6x^2 + 9x - 14 = 1 + 5x^2 + 7x$

$-5x^2 \qquad -5x^2$

$1x^2 + 9x - 14 = 1 + 7x$

$-7x \qquad -7x$

$1x^2 + 2x - 14 = 1$

$-1 \qquad -1$

$x^2 + 2x - 15 = 0$

$(x-3)(x+5) = 0$

$-15 \quad +2$

$-1 \quad 15$

$-3 \quad 5 \quad = +2$

Unit 9 - Day 6 - Quiz Review

May 6, 2014

Graph using a table:

$y = x^2 - 2x - 3$

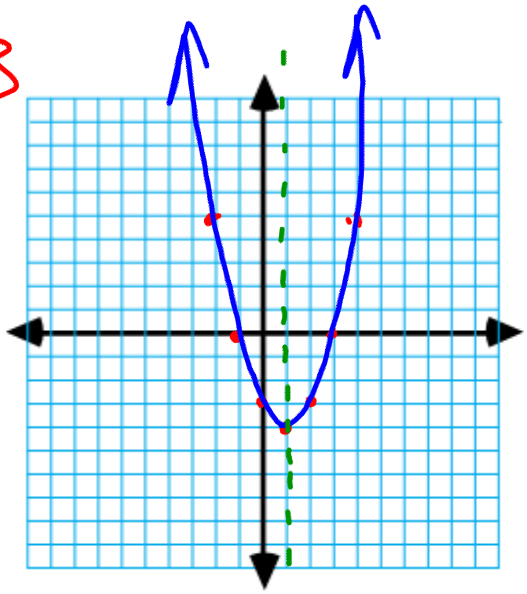
$x^2 - 2x - 3$

$(\ )^2 - 2(\ ) - 3$

x	y
-2	5
-1	0
0	-3
1	-4
2	-3
3	0

VERTEX $(1, -4)$

MIN



Unit 9 - Day 6 - Quiz Review

May 6, 2014

Graph using the Axis of Symmetry and the Vertex:

$$y = 2x^2 - 8x + 3$$

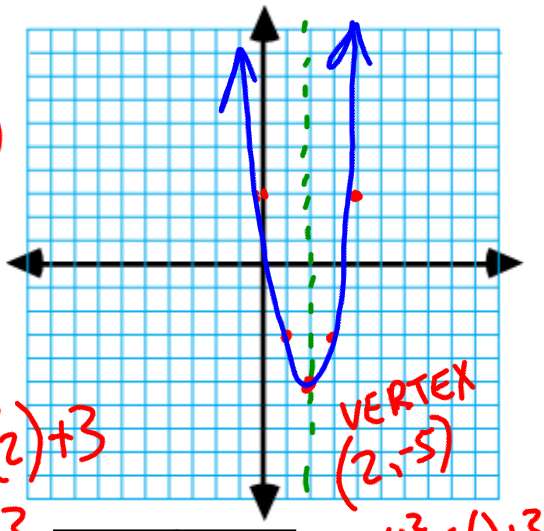
AoS $x = \frac{-b}{2a}$ $\frac{-(-8)}{2(2)} = \frac{8}{4}$ AoS $x = 2$

VERTEX $\left(\frac{-b}{2a}, \right)$

$(2, -5)$ $y = 2(2)^2 - 8(2) + 3$

$= 8 - 16 + 3$

$= -5$



x	y
1	-3
0	3

$y = 2(1)^2 - 8(1) + 3$

$= 2 - 8 + 3$

$= -3$

Unit 9 - Day 6 - Quiz Review

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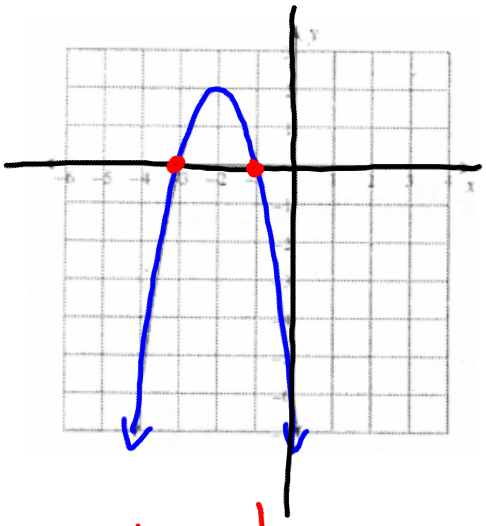
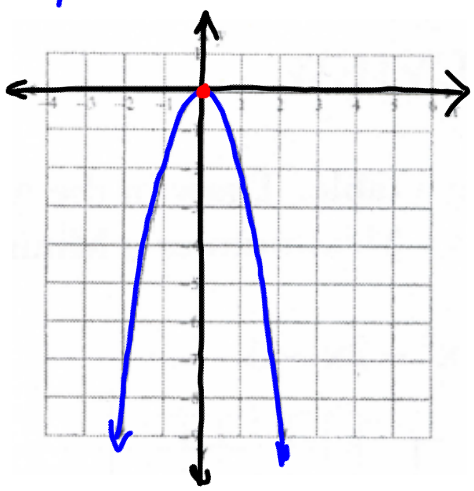
State the solutions: ZEROS/ROOTS/X-INTERCEPTS



$x=-1$

$x=-3$



$x=0$

Unit 9 - Day 6 - Quiz Review

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Graph using any method to find the solutions: $y = -x^2 - 6x - 8$

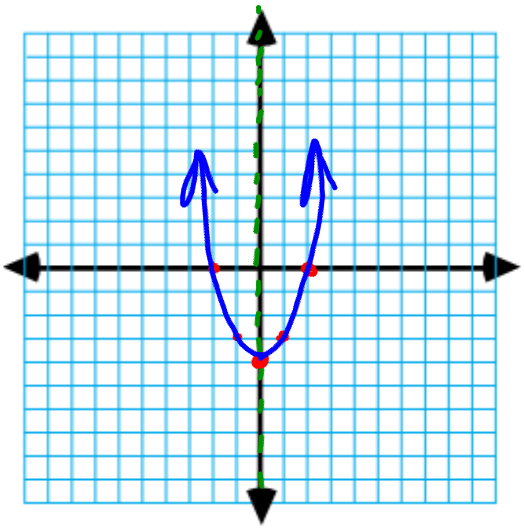
$y = -4 + x^2$ AoS + VERTEX Ax^2+Bx+C

$Y = X^2 - 4$

AoS = $x = \frac{-b}{2a} = \frac{0}{2(1)} = x = 0$

VERTEX $\left(\frac{-b}{2a}, \right)$

$(0, -4)$ $y = (0)^2 - 4 = -4$



X	Y
1	-3
2	0

$Y = X^2 - 4$

$(1)^2 - 4$

$(2)^2 - 4$

Solutions: $X = 2$, $X = -2$

Unit 9 - Day 6 - Quiz Review

$y = -4 + x^2$

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Graph using any method to find the solutions:

$y = -x^2 - 6x - 8$

A = -1
B = -6
C = -8

$AoS = \frac{-b}{2a} = \frac{-(-6)}{2(-1)}$

$= \frac{6}{-2} = -3$

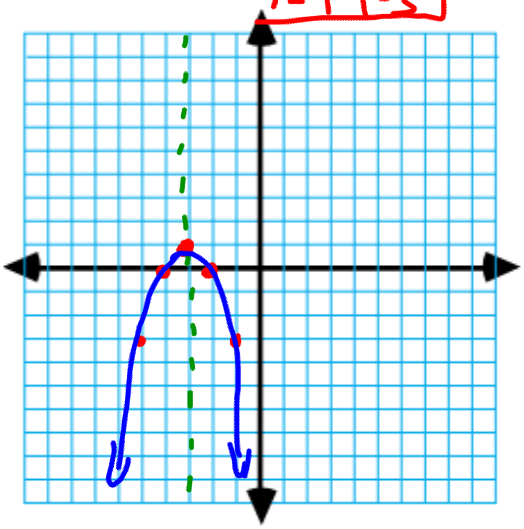
AoS
X = -3

Vertex $(-3, 1)$

$y = -(-3)^2 - 6(-3) - 8$

$-9 + 18 - 8$

X	Y
-2	0
-1	-3



Solutions: $X = -2$, $X = -4$

Find the solutions to the following quadratic equations:

9.) $x^2 + 5x - 24 = 0$

ac -24 b $+5$

$-1, +24$
$-2, +12$
$-3, +8$ $+5$

$(x-3)(x+8)=0$

$x-3=0$ $+3$ $+3$

$x=3$

$x+8=0$ -8 -8

$x=-8$

11.) $2x^2 - 36 = 0$

$\frac{2}{2}$ $\frac{-36}{2}$

$(x^2-18)=0$

$x^2-18=0$ $+18$ $+18$

$x^2=18$

$\sqrt{x^2}=\sqrt{18}$

$x=\pm\sqrt{18}$

$x=\pm 3\sqrt{2}$

14.) $48 = x^2 - 8x$

-48 -48

$0 = x^2-8x-48$

ac -48 -8

$1, -48$
$2, -24$
$3, -16$
$4, -12$

$x^2-8x-48=0$

$(x+4)(x-12)=0$

$x+4=0$ -4 -4

$x=-4$

$x-12=0$ $+12$ $+12$

$x=12$